

ABILHAND-Kids questionnaire: responsive to change or room for change?

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doi: 10.1111/dmcn.13378

This commentary is on the original article by Bleyenheuft et al. on pages 505–511 of this issue.

Developed by Arnould et al.¹ in 2004, the ABILHAND-Kids questionnaire is a Rasch-based measure of manual ability in children aged 6 to 15 years with cerebral palsy (CP). It was created to address the lack of appropriate instruments for measuring the ability of these children to use their hands in activities of daily living. The questionnaire measures parental perception of a child's performance, relying on parental recall within the preceding 3 months. Each item is scored on a 3-point scale (impossible, difficult, easy).

Bleyenheuft et al.² have demonstrated that the ABILHAND-Kids questionnaire is responsive to change. They used the measure with an exclusively unilateral spastic cerebral palsy (USCP) cohort, as did we in an earlier paper.³ The questionnaire is validated for children with all types of CP between the ages of 6 years and 15 years, and when used exclusively with children with USCP the item hierarchies may be altered.⁴ While item hierarchy was found to be invariant across CP subtypes in the study,¹ British and American versions of the questionnaire have not been Rasch analysed following translation from the original French.

In a UK setting we found that some items within the ABILHAND-Kids questionnaire were ambiguous.⁴ Parents are instructed to answer 'irrespective of the limb used to do the activity'. How might parents then answer regarding 'switching on a bedside lamp' or 'taking a coin out of a pocket'? Both tasks are achievable unimanually, but performance in those with USCP will depend very much on the limb used, and for that matter, on the location of the

pocket or lamp in relation to that limb. Parental replies may reflect how they think they are expected to answer.

As the authors point out, increased consistency of response is likely if the same parent completes the questionnaire at each visit and if given the opportunity to ask clarifying questions. For practical reasons it can be difficult, particularly in a clinical setting, to ensure the former requirement. Even with the same parent responding each time, reliance on parental recall may be problematic for items which are rarely observed. Guessing or omitting responses may adversely affect the reliability of this measure – but requiring the child to perform the task at the time of questionnaire completion changes the nature of the assessment to one of capacity. Furthermore, there is potential ambiguity in terms of the specific items being considered: for example, the difficulty of unwrapping a chocolate bar will depend on the nature of the wrapping of that specific bar. Similarly, toothpaste containers with flip caps versus screw tops or pumps present quite different levels of challenge in USCP.

The ABILHAND-Kids questionnaire is useful in a clinical setting because it is quick to complete. By having a paper-based format, it avoids the information governance issues around parental log-in and data-sharing that arise with completion of online measures such as the Children's Hand-use Experience Questionnaire.⁵ The questionnaire could be refined through the use of additional instructions and illustrations (e.g. images of chocolate bars and toothpaste tubes to specify design issues affecting performance). Addition of space for annotations by parents could provide clarification at the analysis stage or when comparing results from two questionnaires, though it could also complicate analysis. Bleyenheuft et al.² identified that the questionnaire was less responsive in adolescents and suggest that a new tool may be required for this age group. Further development of this tool for different subgroups of CP, taking into account the suggestions above, could improve the robustness of this measure.

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